

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:2662
ANSWERED ON:18.03.2008
REPORT OF INDIAN NATIONAL SCIENCE ACADEMY
Barman Shri Hiten

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether the Indian National Science Academy has submitted any report to the Principal Scientific Advisor on development of instrumentation in the country;
- (b) if so, the details thereof;
- (c) whether the Government proposes to introduce the offset clause in case of imported machineries, systems and plants as in case of defence procurements;
- (d) if so, details thereof and if not, the reasons therefor; and
- (e) the steps taken/proposed to be taken by the Government for implementation of the recommendations of this report?

Answer

MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF EARTH SCIENCES (KAPIL SIBAL)

(a) & (b): Yes, Sir. The key recommendations made in the Report of Indian National Science Academy on development of instrumentation in the country are as follows:

(i) In all instrument related projects, industry-academia partnership should be ensured right at the proposal formation. IP rights will then have to be shared.

(ii) Sharing IP rights by funding agencies with the developers of instruments will help marketing of instruments. Funding agencies should put in place a practical mechanism to serve this purpose.

(iii) Government should create a separate fund that would provide an incentive or tax credits to the industry that purchases indigenous instrumentation technology and brings it to the market. It can also be used to help companies in creating a brand for their instruments by enabling them to exhibit their instruments abroad etc.

(iv) Some of the innovators are turning entrepreneurs in some of our S&T institutions like IISc, Bangalore and IIT's. The above fund should provide venture capital to spin off companies formed by these scientist entrepreneurs.

(v) For a technology transfer to be successful, there should be continued association between the technology developer and technology buyer till the latter has successfully absorbed the technology.

(vi) While recommending procurement of the instrument it should be ensured that specs are drawn-up to include those of the locally made ones. Companies and the institutions, which buy locally produced instruments, may be given tax credits.

(vii) A website containing a list of instruments being manufactured in India and a data-base of professors and scientists with expertise in instrumentation, who will interact with the instrument industry, should be maintained.

(viii) Technology Parks; and 'Incubation Centres' in proximity to R&D institutions to exploit the S&T strength of the R&D institutes may be created.

(ix) The Government may set up a few component and subsystem development technology parks.

(x) Accreditation Centres should be setup/augmented for certification of instruments conforming international norms like ISO, CE, UL, and QS etc.

(xi) Government should establish some Centres of excellence in electronics and encourage the industry to use them.

(xii) Academics and science administrators should give due credit to instrumentation scientists in promotions, awards and election to Fellowships.

(xiii) The S&T institutions may help to upgrade the skills, knowledge and technical manpower in industry by organizing short-term course, seminars etc.

(xiv) Some Indian universities may start multidisciplinary course involving S&T and business management and also take steps to produce manpower required for particular skills needed by the industry. Similarly, the industry may do more for training of students at their plants, as hands-on training will be an important step to develop entrepreneurial skills in them.

(xv) Some instrumentation linkage companies should provide rapid prototyping services for converting innovations into products.

(c) & (d): No, Sir.

(e) The Department under the overall guidance of the National Instrumentation Development Board (NIDB) has been supporting development of Analytical, Industrial, Medical & Health Care Instruments including various types of Sensors in the country. The industry participation is ensured right from the beginning in all such projects. The conditions for intellectual property rights, technology transfer etc. are covered by the general guidelines framed in this regard. A database of all the scientific instruments and components manufactured in India has been compiled and published by Central Scientific Instruments Organisation (CSIO), Chandigarh. The Department has set up various Science & Technology Parks, Technology Business Incubation Centres and Centres of Excellence in different academic institutions as a general facility to back up commercialization of technologies developed in various institutes.